



## Second Cycle Pontoon Float-out Facts

- It took about **seven hours** to complete the float out from start to finish. The graving dock will now be emptied of water and ready for the third cycle of pontoons.
- Water in the graving dock was about **14 feet** deep.
- All **110** cells in the five pontoons were inspected before the pontoons were floated out of the graving dock. About **50** Kiewit-General and WSDOT inspectors checked each and every cell before float-out.
- **Six** different tug boats with Foss Tug were used to tow the pontoons out of the graving dock. Foss Tug has **110** years of experience in towing.
- After they leave the graving dock, the two N pontoons are moored in Blair Waterway. The three Y pontoons are now on their way to the Port of Seattle for mooring. The N pontoons will follow in about a week.
- The pontoons will travel **35 miles** to Seattle, Wash. where they will be assembled and outfitted with roadway for the bridge's draw span.
- The pontoons will be traveling at **2 knots**, or about **2.3 mph**. It will take about **17 hours** for the pontoons to travel from Tacoma to Seattle.
- **Five** draw span pontoons were constructed:
  - Pontoons NA & NB are: **193 feet** long, **40 feet** wide and **21 feet** tall; final weight with roadway ~**3,900 tons** each
  - Pontoon YD, YE and YF are: **60 feet** long, **152 feet** wide and **16 feet** tall, final weight with roadway ~**3,500 tons** each
- The two N pontoons each weigh more than a 440 foot ferry (which is **3,200 tons**).
- Pontoons YD, YE and YF together are approximately the length of a Boeing 787 airplane.
- All together, almost **8,000** cubic yards of concrete make up pontoons NA, NB, YD, YE and YF. That's enough to cover a football field with **four and one-half** feet of concrete.
- The new east-half of the Hood Canal Bridge is comprised of **17** pontoons. **Fourteen** pontoons will be built at the Concrete Technology graving dock- this marks **eight** complete. **Three** pontoons from the 1980s are being retrofitted in Seattle.

### East-half Replacement and West-half Retrofit Project

**Start Date:** August 2002

**Completion Date:** 2010

**Project Budget:** \$471 million

#### **Major Work Items:**

- Replace the east-half floating portion of the bridge

- Replace the east and west approach spans
- Replace the east and west transition spans
- Widen the west-half to allow for continuous eight-foot shoulders across the entire length of the bridge -- matching the new east-half
- Upgrade electrical systems on the west-half

### Historical Facts:

- Construction began January 1958 and was opened to traffic on August 12, 1961.
- Original bridge construction cost \$26.6 million.
- The bridge was named in honor of William A. Bugge. Bugge was director of the Department of Highways from 1949 to 1963, and was a leader in the planning and construction of the bridge.
- The pontoons for the floating bridge were constructed at a graving dock along the Duwamish River in Seattle and towed by tugs to the bridge site.
- The bridge's west half failed and sank on February 13, 1979 during a storm carrying wind gusts of 120 mph and sustained winds of 85 miles per hour. The west half re-opened in October 1982.
- Replacement of the west half and rehabilitation of the east half cost \$143 million.
- Average daily traffic across Hood Canal Bridge is approximately 14,000 vehicles. Peak volumes reach 20,000 vehicles on summer weekends.
- The water depth below the floating bridge pontoons ranges from 80 to 340 feet. In its marine environment, the bridge is exposed to tide swings of 16.5 feet.
- During inclement weather, when winds of 40 mph or more are sustained for 15 minutes, the draw span is retracted (closing the bridge to vehicle traffic).